

# Some Notes on Sanctuaries and Wild Life in South India (1959)

BY

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Anyone now (January 1959) revisiting the Nilgiris after a lapse of 15 or 20 years cannot but be struck by the transformation that is overtaking the whole scene, particularly on the plateau itself. During and since the last war, there has been a steady increase in the area of land brought under vegetable cultivation, with its accompanying unsightliness. Natural forest cover is giving way to extensive tea, wattle, and eucalyptus plantation, and there is nothing uglier in the whole field of silviculture than eucalyptus farming as practised in the Nilgiris. Most important of all is the dam construction, both in hand and prospective. This in a few years' time will transform the higher parts of the plateau into a lake district, submerging many of the valleys formerly noted for their natural scenic beauty. The catchment areas of some of these reservoirs have already been very extensively afforested, also with wattle and eucalyptus. Thus, far and wide the characteristic and traditional Nilgiri scenery of downland and shola will soon have disappeared. Perhaps it will only be visible in the unspoilt natural state in the most inaccessible places and in those localities where special steps have been taken for its preservation. It is understood that some such steps have been taken to preserve the Wenlock Down area, the views over most of which are still refreshingly natural. But it is sad to find that there is already some infringement on what used to be one of the finest examples of a typical Nilgiri landscape, namely the view from the terrace of the Ooty Golf Club. Here the expanse of rolling downs and sholas spread, with scarcely a human habitation visible, as far as the eye could see on either hand, and receded into a distant background of higher peaks fading range after range in perspective. On a fine evening, with the setting sun breaking in slanting golden shafts through a scattered ceiling of cloud to throw a patchwork of light and shade over all, this was a view of unforgettable beauty. Now the squares of bare earth and red-tiled roofs, which denote the advent of vegetable cultivation, have started to creep in from both

sides of the picture and the gaunt outlines of mutilated eucalyptus trees have begun to introduce the usual disfigurement. It is a pity, because this characteristic Nilgiri scenery, and this particular view in itself, was a great attraction to the visitors on whom Ooty thrives. One cannot help wondering whether, if most of it is destroyed, the inhabitants of Ooty and the Nilgiris will not have lost more than they have gained by destroying it. Also, is it really necessary to destroy most of it?

However, some developments of this sort are only to be expected as a result of the relentless pressure of expanding population from down below. Without doubt, they are for the greater part in the widest interests of the nation and, as such, one can only take exception to certain details of their implementation. The fact has to be faced that, in a few years' time, the aspect of the Nilgiri plateau or a very large part of it will be transformed. It will then be largely a region of chequered cultivation, man-made plantations, and artificial lakes, surrounded by afforested hills. Much of it will be opened up for the first time by a network of newly constructed motor roads with their accompanying infusion of 'civilisation'. So in due course any remaining tracts of natural scenery will probably be regarded as museum pieces.

Whether most of these changes will be for the good or not scenically is a matter of taste and opinion. Certainly, they will make for an interesting study in ecology which should well repay any research put into it. For when the hand of man is busy altering the face of the earth so intensively it is bound to have a pronounced impact sooner or later on the local fauna. Existing species may find the new conditions uncongenial and dwindle in numbers, or possibly even change their habits; species not at present represented may find the conditions to their liking and move in. There may even be scope for interesting (but one hopes cautious) experiments in the introduction of new species, particularly fish. All this should provide an absorbing and rewarding study in about 5 to 10 years from now and thereafter.

Meanwhile it is pertinent to take note of the current position of wild life on the Nilgiri plateau. It is a region which by its very nature cannot ever have supported the larger mammals in any real numbers; evidently, also, their numbers have always fluctuated considerably with the seasons and the local conditions. However that may be, the expansion of the human population and of the cultivated area has undoubtedly reduced the natural stock to a pitifully low level today. From all sides one hears that the existing protection

laws have failed signally to check the inroads of poaching. It is arguable that they have also failed to afford the necessary protection through legitimately controlled shooting or fishing. To this there is one exception in the case of the Nilgiri Tahr (*Hemitragus hylocrius*) the protection of which appears to have been a notable success. But, in fairness, it must be conceded that both its habits and its habitat lend themselves to artificial protection; for it is an animal well able to look after itself, with natural haunts so far removed from human habitation as not to infringe on cultivated land and to attract the attention of only the most ardent shikari. Apart from the one case it cannot be denied that the present status of the larger and more interesting mammals is an extremely dismal one. What of the future? Unless there is a radical improvement in the efficacy of the protection laws and the efficiency of their enforcement, there seems little hope of improvement. It will be a great pity if something sweeping and imaginative is not done in the direction and done soon. For, to balance the spread of cultivation and the clearance of sholas, the extensive afforestation already referred to should eventually provide an over-all increase in the area of cover available for the larger animals. Whether all this artificial growth will be suitable to the needs of the native fauna can only be determined in the course of time and assessed by expert observation. If results are favourable the usual clash with the interests of agriculture and of stock farming will certainly arise. But to a great extent the newly afforested areas are fairly remote from cultivation and it should be possible, with properly framed and enforced laws and intelligent administration, to strike a happy balance between the requirements of the naturalist and the sportsman and those of the farmer.

As regards birds, here again the plateau is a region which does not freely support the larger species. But it is, or could be, a most interesting field for the observation of a large number of the smaller ones, varied and augmented as they are from time to time by local and long-distance migration. At the present time there is one species above all which forces itself on the attention of the visitor, namely the Jungle Crow (*Corvus macrorhynchos*). It is so noticeably abundant as virtually to replace the common House Crow (*Corvus splendens*) of the plains, both as a scavenger in the urban areas and as a forager in the country. From the ornithological point of view this is a sinister fact; for there can surely be no species so destructive to other and useful birds in the nesting season. One cannot help wondering at the beneficial effect on the useful bird

population of the Nilgiris that would result from a drastic control of the Jungle Crow and all his works.

Of game birds, both the variety and numbers are strictly limited. Despite the presence of much and widely dispersed bog land, the occurrence of snipe (*Capella gallinago*) cannot be described as more than occasional, at least as the snipe population is reckoned in other parts of India. Where there has been inundation on a large scale, waterfowl of all kinds are conspicuous by their almost total absence. From this it can only be concluded that there is something lacking so far as birds are concerned in the water-borne food supply of the Nilgiris. So the prospect of the creation of a number of new lakes does not appear to hold out any promise for the future in this direction. The real target for the small game shikari in the Nilgiris is the Grey Junglefowl (*Gallus sonneratii*), which is both resident and locally migrant, and Woodcock (*Scolopax rusticola*), entirely a long-distance migrant. The changing conditions are hardly likely to favour the latter since the clearance of sholas will restrict the haunts suitable to their highly specialized needs and the increased incidence of human disturbance is likely to discourage them. For Grey Junglefowl, on the other hand, the spread of afforestation may possibly be beneficial. But, under the most favourable conditions, the status of both species can hardly in the nature of things become one of abundance. In addition to coping with their natural enemies they cannot be expected to stand up to concentrated and unrestrained shooting. Hence, unless intelligently-framed protection laws are effectively administered, they are bound to suffer even further depletion.

The present sadly depleted status of these game birds is sufficient evidence of the ineffectiveness of the existing laws and their administration. To the visitor these appear to consist of more fees to be paid and rules to be read than there are game birds to be pursued, while the means for enforcing all these regulations properly are very far from being apparent. To this day the writer, who scrupulously observed all the rules on his one and only fruitless outing, has not received back the deposit paid about a year ago as a guarantee for observing them. There may still be worthwhile sport for the local resident who has access to private land and who knows his way about intimately and the pitfalls to be avoided. But it is not a form of sport to be recommended for the visitor as things stand at present.

What the Nilgiri game laws lack in efficiency they try to make up for in comprehensiveness. But even if there did exist the where-

withal to enforce all these rules and regulations it is doubtful whether they would be effective. This is because they lack proper provision for controlling the frequency with which an area of land is shot over or a stretch of water fished. For the type of shooting and fishing with which the laws are concerned this is surely an absolutely essential requirement. At present there is apparently nothing to prevent a stretch of trout water which has been showing good results from being fished all day and every day by any number of rods indefinitely. This is undoubtedly a major cause of the trout fishing standard in most of the Nilgiri streams having sunk to its present abysmal depths. The same would apply to the junglefowl shooting.

If the country were to be divided into shooting blocks and the trout streams into fishing beats, and permits issued accordingly in line with the needs of conservation, it should be possible with adequate administration to exercise complete control of frequency on public lands and waters. This is a system which has worked very successfully for shooting in the reserved forests of the former Central Provinces and Bombay Presidency and for trout fishing in Kashmir, and there seems no reason why it should not be equally successful in the Nilgiris.

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When the main Mysore Road leaves the rolling, open downland of the Nilgiri plateau it starts the descent by curving and undulating through an area of thick, low-growing natural forest. It then emerges suddenly on the very edge of the mountain range to disclose a startling panorama over a drop of some three thousand feet with a horizon scores of miles ahead and on either side. This view on a clear day must have few equals in India, or anywhere else for that matter. At this point the Nilgiri Range descends, with a few rocky outcrops, almost sheer to the Mysore plain below. From its foot there spreads out an uneven green carpet of thick forest as far as the eye can see, to a backdrop of jagged peaks hazy in the far distance. Clinging to the escarpment's edge the motor road proceeds in serpentine fashion along the gentle gradients afforded by a well-planned alignment, through patches of forest and cool coffee plantations, until it suddenly unfolds into the straggling village of Gudalur. From there it pursues a comparatively straight and level course, but now through stands of the most luxuriant forest. At first massed clumps of giant bamboos overtop the road, their outlines plumed and feathery. These soon give way to thick tangles of vegetation presided over by towering evergreen trees partially excluding the light and

imparting rather a sombre atmosphere to the scene. A cloistered silence prevails and there are few signs of life. All this betokens heavy rainfall and an abundance of retained moisture. But presently, as the climatic influence of the mountains recedes, a lighter, more open, and partially deciduous forest supervenes. Here at this time of day the only evidence of wild life is provided by frequent parties of langur monkeys (*Presbytis entellus*), feeding confidently along the roadside. But it does not require much imagination to realise that this whole tract of forest is an ideal habitat for almost the whole range of India's big game. In fact one is actually passing through the areas reserved by both the Mysore and Madras Governments for their wild life sanctuaries. The immediate objective is the rest-house provided by the Mysore Government for viewing its sanctuary of Bandipur.

#### BANDIPUR

The group of rest houses at Bandipur is ideally situated for their purpose, since although they lie within sight of the main road, only a few minutes' transportation takes the visitors into the heart of the forest. For transport the choice lies between a motor vehicle and elephant back. To have the best chance of seeing what one has come to see in the limited time available it is as well to try to cover as much ground as possible at the most likely times of day, namely early morning and late evening. So the choice inevitably falls on motor transport and instructions are given accordingly. Punctually, when the sun is well down towards the horizon, the vehicle presents itself. But it is very different from what was expected, being nothing other than an ordinary and rather elderly, light, commercial truck. It also carries an unexpectedly large crew, whose duties in relation to the job in hand are by no means clear. However, the expedition starts with a roar and a jerk and without much undue delay. Almost at once all traces of civilisation are left behind and the fruits of conservation in the shape of a plentiful stock of peafowl and jungle-fowl become apparent. But it also becomes apparent that the springs of the transport vehicle, if indeed there are any, have become well flattened out by violent use and abuse. The way lies over rough forest tracks which, though comfortable enough for a well-sprung passenger car, cause the truck, driven at some speed, to buck and sway like a launch in a choppy sea. Furthermore, the seating accommodation, which consists of hard, backless benches placed unsecured in the body of the vehicle, shows itself ill-suited for the purpose by

bouncing and sliding about uncontrollably. Presently, the first herd of Chital (*Axis axis*) comes into view. There is much excited, but commendably silent, pointing by the crew. The brakes are jammed on firmly, causing the passengers and their benches to concertina quite indiscriminately against the driver's cab. The chital seem quite used to this sort of thing and continue grazing unconcernedly under the leadership of a finely antlered stag, their sleek dappled beautifully proportioned forms well shown up by the last rays of a setting sun. But this enchanting scene is quickly obscured by the truck's own cloud of dust catching up with it on a following breeze. So the expedition proceeds, bumping and rattling as before.

For the most part the forest is light and open, with many of the deciduous trees bare, thickened here and there by clumps of bamboo, and interspersed with grassy glades. There are occasional pools of water, on almost every one of which a pair of Spotbill Duck (*Anas poecilorhyncha*) is to be seen, thus showing how conservation of this kind can help preserve some of the larger indigenous game birds as well. But as a whole this tract of forest becomes too dry, soon after the monsoon is spent, to support the Elephant (*Elephas maximus*) and Bison (*Bos gaurus*) which every visitor comes to see and they have moved elsewhere for better grazing. Yet, as the truck winds over the many miles of track with which the Bandipur Sanctuary is provided, it is clear that a very satisfactory number of Chital (*Axis axis*) and Sambar (*Cervus unicolor*) is maintained. Also, their tameness is a tribute to the efficiency with which the work of conservation has been carried out.

Next morning, after a Spartan night spent on wooden plank beds, each as hard as a sacrificial slab, the expedition is repeated. The results are very much the same so far as the viewing of animals is concerned. But what is lacking in the variety of wild life is compensated to a great extent by the charm of the scenery. At this time of day the forest is lightly clad in early morning mist. This vanishes as the sun gains in power to reveal the wildness of the surroundings in a soft glowing light and the full grandeur of the Nilgiri Range rising abrupt and clear-cut from the horizon only a score or so of miles away.

For this excursion the visitors, their posteriors by now well chastened by the continuous impact of the unyielding benches, prefer to stand most of the day. With little on which to grip, this is not only a severe test of one's balancing powers, but involves the risk of being suddenly swept off by an overhanging branch or catapulted into the surrounding forest by an unexpected heave of the truck.

After a time, with the magic of early morning dispelled by the harsh light of day, this sort of progress begins to pall. A distant view of the rest house is quite welcome, especially as breakfast is known to be waiting there. Then, as if by way of a parting present, the forest with almost its last opportunity reveals a superb, lone sambar stag. Hearing the approaching noises it had paused frozen in its tracks to investigate. It stood stock still in a small glade only a stone's throw away, gazing back over its shoulder with its ears pricked forward in curiosity and its muzzle upraised as if to ease the burden of the thick, branching antlers. Soon it sensed the presence of humans and melted almost imperceptibly into the forest background, leaving behind a memorable impression on the minds of its viewers. The latter, though stimulated by this wonderful sight, disembarked a few minutes later with some relief. By now, they had that well-churned-up feeling which one usually associates with a session on one of those mechanical horses to be found in a ship's gymnasium.

#### MUDUMALAI

The next objective is the Mudumalai Sanctuary maintained by the Madras State, whose boundary marches with Bandipur only a few miles down the main roads on the way back to Gudalur. Although much the larger of the two in area, Mudumalai is apparently not well served by motorable tracks. So an evening excursion on elephant back is arranged. Incidentally, the camp of the Forest Department's working elephants is one of the most interesting sights in this area and, being located by the side of the main road, is easily accessible. But on this occasion all its occupants were still out on the day's work except one large, rather somnoient female with a very young and frisky calf at heel. There is not time to do more than strike up a passing acquaintance with these two since the riding elephant is already kneeling ready to receive its passengers at the rendezvous just up the road. In a very short time the party is mounted and away in the thick of the forest. And then the main advantage of an elephant ride over motor transport is at once apparent. For the way is now right off the beaten track, through the densest forest, up and down steep inclines and across unbridged watercourses. A steady, unhurried pace is kept up throughout regardless of the terrain. Being nearer the treetops there is ample time and opportunity for observing the smaller forest inhabitants such as birds and butterflies and also several giant squirrels whose habitat is only a little above



eye level by this means of transport. The forest here is of a very different type to that at Bandipur. There is an abundance of lush grazing, a preponderance of evergreen trees, patches of dense undergrowth, frequent clumps of gigantic bamboos, and a sufficiency of water—in fact everything, seemingly, that should go to attract and support a good stock of elephant and bison. But, unfortunately, although there are many recent traces of the former, not one of either species is encountered in the limited compass of an elephant ride during the two hours or so before sunset. Such a brief excursion must always be chancy of results. Yet, even if nothing in the way of big game is to be seen, a ride on elephant back can never be really dull if one takes an interest in the behaviour of the mount itself as it makes a bee-line through every obstacle the forest can present. For an elephant moves its massive bulk with such fully articulated precision as to be fascinating to watch. The result is a smooth, silent, deliberate progress which gives the impression of every movement being carefully calculated, of perfect control over immense power, and of a capacity for almost unlimited endurance. There can be little doubt that the elephant is one of nature's most efficient products as well as one of her largest.

This one fills in the time and his stomach by nonchalantly plucking titbits from right and left without checking in his stride and stuffing them into his mouth, to be consumed voluminously as he continues on his way. Thus he makes a good meal without incurring the displeasure of his mahout, and finishes much more contented than his rather disappointed passengers, when the cavalcade returns to the starting point just as darkness falls.

After seeing these two sanctuaries a thoughtful visitor cannot help raising the question of how far they have been successful in achieving the objects for which they were instituted. What in fact are the main objects? There is first and foremost the object of pure preservation and in this it can be said at once that considerable success has been achieved. But almost equally important is the object of enabling the wild life thus preserved to be viewed and studied with reasonable facility and comfort by visitors, particularly foreign visitors, by which term I mean ordinary visitors and not those coming on a V.I.P. basis. For this purpose it seems fair to say that current arrangements do not go nearly far enough. In fact it appears that a golden opportunity is being missed to enlarge on this, and the following is intended as a constructive commentary from a foreign visitor's point of view.

In the first place there is the question of the way in which the

sanctuaries themselves are at present constituted. It is understood that the Bandipur Sanctuary is only between 20 and 30 square miles (52 and 78 sq. km.) in extent. One hears that shooting is still allowed in its immediate neighbourhood and, on very special occasions, even the sanctuary itself. If this is so it seems a great pity and is difficult to understand. But even more surprising is the fact that the Mudumalai Sanctuary, although immediately adjacent to and part of the very same forest tract, is operated as a completely separate concern. This is because the entirely artificial political boundary between Mysore and Madras States happens to run through this forest area and each State apparently has to control its own sanctuary. Surely in a matter like this local political outlooks can be stretched to a broader national view, and an amalgamation effected into one centrally administered whole. It would of course vastly enhance the value of the whole project if in doing so the total area of the unified sanctuary could be suitably increased to about 300 sq. miles (780 sq. km.).

Then there is the question of the actual viewing facilities for visitors. Most of them are likely to have only a short time available. In such circumstances the best chance of seeing something worthwhile is by covering as much ground as possible during the most promising times of the day, which add up to a very few hours in all. This makes motor transport essential and presupposes that the whole sanctuary area is covered by an adequate network of motorable tracks. And there seems no reason why this should necessarily involve extreme discomfort. A freight truck can by no stretch of the imagination be held suitable for the purpose, particularly if special seating fitments are not provided. The noise alone that it makes goes a long way to defeat its purpose. The commoner animals, more accustomed to the presence of man, have evidently got used to it. But this may account for the fact that tiger and panther are so seldom seen by visitors. With their extremely acute hearing they can detect one of these approaching excursions from a great distance and make themselves temporarily invisible with the utmost ease. A jeep-type vehicle is surely the most suitable for this sort of work and two or three of them at the outside would cover all present needs. Also there seems no real reason why visitors so willing should not be allowed to take out their own cars if escorted. At the same time it should be remembered that in the world of Indian fauna the greater activity happens at night. By far the best way of viewing nocturnally is by construction of an elevated observation post over a water-hole on the lines of Tree Tops

in Kenya. It need not be unduly elaborate, but in this forest would certainly have to be insect-proof. All this should not be taken to suggest that excursions on elephant back should be eliminated. They should certainly be retained, as a supplementary means of transport for those with more time at their disposal, or who are more interested in a close and leisurely study of the smaller forms of forest life, or who are intent on photography. Since in any case the Forest Department's working elephants are maintained here, this should not be difficult to arrange. Another aspect of this whole matter concerns the best means for ensuring that animals are attracted permanently to the sanctuary enclave in sufficient numbers and remain there as evenly spread as possible over the entire area. For at present there tends to be a distinct local migration in the dry season to follow the best grazing. The most likely means for dealing with this problem would appear to be the formation of more water-holes, the provision of artificial salt licks, and even suitable planting, if and where possible, in the drier zone of the sanctuary.

Finally there is the question of accommodation for visitors. At present this is about the most unsatisfactory feature of all. To begin with, application has to be made to a separate authority, each at a different place, for each sanctuary, with the added annoyance more often than not of dilatoriness in reply. As for the accommodation itself, at Bandipur it consists of three separate units at some distance from each other in a large cleared area. The largest of these is understood to be the former State shooting lodge, a portion of which still seems to be reserved for official purposes. That part of it which is available to the public is more suitable as accommodation for large family or other such parties than for casual visitors. The second unit of accommodation, the Forest Rest House, while well built, well situated, and clean, seems designed primarily to house officials on tour and is far from convenient for a number of visitors arriving in ones or twos and strangers to each other. The third unit, again situated at some distance from the other two, was at that time not yet ready for occupation. So far as could be seen it comes much nearer to actual needs in that a row of small bed rooms, each with a bathroom and a verandah, is provided.

But what should really be provided for a requirement like this is a compact arrangement of buildings on the hostel system, with a number of small double suites attached to a central lounge, dining room and kitchen. This would give not only the most suitable but also the most economically administered accommodation. At present even basic food requirements such as rice, vegetables, eggs,

and milk are very difficult to obtain. If the supply of these could be organised, it would save visitors the inconvenience of bringing perishable foodstuffs as well as tinned stores.

At Mudumalai, a new rest house has recently been completed, the design of which is much more suited to the needs of the case and it is well situated to command a wonderful view over the forest towards the Nilgiri Range. But the number of rooms available seems inadequate, if the requirements of touring officials have also to be taken into account, in addition to those of visitors.

There is one more point on this subject of accommodation, a small one admittedly, but worth mentioning in the general context. Surely the interiors of rest houses in a wild life sanctuary are not suitable places for a display of trophies of the chase or of V.I.P.'s on shikar posed in front of their latest victims. Here more appropriately is an opportunity to display, suitably enlarged, some of the wonderful photos that have been taken of the living wild life to be found in this forest. In addition to their aesthetic value they would serve to promote the cause of conservation and also help uninitiated visitors to identify the various species which they are likely to see.

When it is time to leave this attractive and largely unspoilt forest, the return journey to the Nilgiri Hills is started with some reluctance. As the road climbs back to the plateau there is again revealed that wonderful panorama over the treetops just left behind. The visitor with an enquiring mind cannot help but feel that he has been shown only a part of what there really is to see. His disappointment is perhaps tempered by the hope that surely the authorities may in the not very distant future develop the full potential of this most interesting region as both a show place and field of research for the naturalist. In so doing they will reveal the true value of a fine national asset and there will be an immeasurable gain to all concerned if they do.

#### PERIYAR

The long established and now widely known Periyar Game Sanctuary is remotely situated from most of the more usually frequented centres of population. Perhaps this is as well and may account for a good deal of its attraction. But when someone genuinely interested really wants to see it, the journey thither represents something of a problem for those not actually resident in the far south. However, for the intending visitor from the Nilgiris there is a very direct and scarcely known route which is of some

interest in itself. This lies from the foot of the Mettupalayam Ghat straight across the intervening plain to a locality where the foothills of the Annamalais and the High Range converge. From there a little used and rather neglected road starts to climb, at first gradually, then steeply, but always tortuously, into the hills. Very soon the asphalt surface, cultivation and other signs of a settled area are left behind. For several miles, the way is through a zone of scanty rainfall with resulting ragged scrub-jungle and scraggy deciduous forest. At times the road clings giddily and without a parapet to the sides of precipitous slopes with a drop of many hundreds of feet on one side. Quite suddenly, it straightens out somewhat into more fertile and well-favoured valleys and the first tea plantations appear. Finally another steep climb up and over, debouching into scenery reminiscent of Scotland, brings the traveller after many winding miles to Munnar, the capital of the tea industry in the High Range. From there onward, the road leads through scenery of an entirely different character. Once the orderly green ocean of tea has been left behind, it plunges into a jumble of low hills and thick tangled forest, long stretches of which have been adapted to cardamom plantation. This is real elephant country. In some ways it would be the most interesting part of the whole trip if only the condition of the road gave the opportunity to enjoy the surroundings. As things are, it is quite a relief to reach Thekkady, the nearest inhabited place to the sanctuary.

The hostel on the Periyar Lake is self-contained in that advance booking can be accepted on the spot, comfortable and fully-equipped accommodation is available, and full feeding arrangements are provided. There is thus a vast improvement over the Madras/Mysore organisation in this respect alone. It is situated on the very edge of the lake which forms the core of the sanctuary and within a few minutes of arrival a launch trip is booked for the same evening. It merely remains to fill in the intervening time with rest and refreshment.

It is only a hundred yards (90 metres) or so from the hostel down to the landing stage. When the launch pushes off, the surrounding scene is flushed with mellow evening sunlight, most stimulating to the anticipation of prospects ahead. One does not have to go very far to realise why this is such an admirable place for viewing wild life. For when a dam was thrown across the Periyar River it formed not one vast expanse of open water, but a series of long channels reaching up narrow valleys through the surrounding hills. The result is that a boat is seldom more than a hundred yards or

so from the shore on either side and anything near the water's edge is clearly visible to the naked eye. In places, towering, untouched forest comes to within a few yards of the lake with rich grazing along the verge. Elsewhere grassy slopes of varying steepness rise to a few hundred feet, their folds and gullies thickly wooded. The water channels wind and bend, so that it is frequently possible to get surprise views by coming round a corner suddenly without being seen. It is hard to imagine a more convenient arrangement for observation and all from the comfort of a launch. In these respects the Periyar Sanctuary must surely be unique.

But on this particular evening there is not much to be seen. Especially there is a strange absence of birds, and of water birds there are scarcely any visible at all. As the voyage gets well away from the inhabited end of the lake, sambar appear regularly, sometimes in numbers, grazing high up in the open. They seem to favour the extensive patches of burnt grass, presumably attracted by the lush new sproutings, but incidentally making themselves almost invisible against the dark background. The single master stag seen was lying down on one of these burnt patches and could only be spotted for certain by careful focussing with the binoculars.

A sharp turn leads to the dam itself, and the only sizeable expanse of open water. On the far side steep grass-covered slopes lead up to the highest peaks that border the lake. There is a large rock-like object protruding from the grass far up above the water here. Is it a rock or not? The binoculars seem to confirm that it is. But there is something unusual about it and further scrutiny by eye convinces that there has been some sort of movement. Again the binoculars are brought to bear and there is no mistake about it this time. It is an elephant all right—a flapping ear gives it away. It is standing knee-deep in grass, surrounded by such an abundance of food that it scarcely needs to move in gathering its evening meal. Now that the outline is familiar a second one is spotted, lower down and browsing at the edge of a thicket. The launch is stopped and for several minutes the party watch intently and unobserved. Then the dipping of the sun below the horizon warns us that it is time to go and the launch is turned homewards. The light is too poor now to see much but a glimpse is caught of a lone bull bison at the water's edge. He is very much alert and fades into the forest with an ease that is astonishing for so large an animal. Further on, there is a simultaneous though distant view of a herd of bison cows with calves and a large sounder of pig, all within sight of the Travancore State Lodge. It is dark when the landing stage is regained,

Very early next morning the trip is repeated. It is half light when a start is made and ragged wisps of mist still cling to the higher parts of the forest; most of the peaks are shrouded in cloud. Over all there is calm and silence, broken only by the hoarse purring of the launch's engine. Ten minutes or so pass uneventfully and then, as if by arrangement, out of the forest just ahead and close to the shore, steps a magnificent bull bison. He is facing the other way, so has not seen, and somehow has not heard, the intruders. The driver has the sense to stop the engine at once and the launch glides silently under its own momentum almost level with the object in view. At a range of about 50 yards (45 metres) every detail of the bison can be observed, his huge, hunched shoulders and shapely hindquarters, the powerful muscles rippling under his sleek, chocolate-coloured hide, the smart white socks and twitching tail. Presently something prompts him to turn his head giving a view of the massive, curling horns. A brief pause and gaze, dilated nostrils, and then, not satisfied with what is to be seen, he is gone as silently and suddenly as he appeared. The party resume their voyage exhilarated and fully confident that this morning their luck is well and truly in. Yet although they cruise around far and wide for an hour or so nothing further of any sort is seen. So a course is set straight back to the hostel with all thoughts on the breakfast waiting there to the exclusion of everything else. Then, as often happens on such occasions, the sight for which they have been hoping and searching unexpectedly presents itself. In passing a long narrow inlet 3 elephants are spotted disporting themselves on the open shore. The helm is put hard over, speed is reduced, and the stalk begins. But the elephants have heard them and take speedy evasive action. To make up for this the launch comes suddenly on a party of cows with very young calves, all hitherto unseen on the opposite bank. These stand nervously huddled together in long grass, with upcurled trunks searching the air like some sort of radar equipment, and their offspring shielded by their bodies. The visitors are watching this interesting family scene when something much more exciting comes into view. At the head of the inlet on a wide grassy level, well away from the surrounding trees, stands a giant solitary tusker. Except for a gentle swaying of his trunk he stands quite motionless as if meditating on a full stomach and wondering what to do next. Against the background of sweeping grassland and wild forest, with distant cloud-capped peaks where the morning sun is just breaking through in downward-slanting beams of light, there is something primeval about this scene which stirs the imagination. The visitors

watch enthralled until their departure can no longer be delayed, leaving the tusker to his thoughts.

What are the reflections on a visit like this to Periyar? The facilities provided for visitors go a long way to meeting justifiable requirements. At the hostel the accommodation, service, and food set quite a satisfactory standard. Nevertheless, the sleeping accommodation at present available could with definite advantage be supplemented by additional single and double rooms, which need not be large. There should not then be undue congestion with the arrival of sizeable parties in addition to the usual casual visitors. But is it necessary to have the windows of the hostel so heavily protected with thick, vertical, iron bars? In the larger rooms they give one the impression of being caged and in the smaller ones of being confined in a prison cell. The compound is already guarded by a special ditch sufficient to keep out most animals and it is understood that the additional window protection is to guard nervous visitors from over-inquisitive and perhaps hungry carnivora! If they really must be so protected there are several kinds of window guards on the market in artistically wrought designs which would be equally effective. Then again, although the hostel is well situated on a promontory overlooking the lake, it is completely screened by trees from an exceptionally beautiful outlook. This could surely be improved by judicious felling and clearance without in any way spoiling the scenery as a whole. Certainly the attractions of the hostel would be immensely increased thereby.

While the transport arrangements for viewing are as efficient and comfortable as one could reasonably wish, there would be a great improvement if the launch engines were to be fitted with silencers. This would much enhance the prospects of seeing the more wary animals, particularly the carnivora. At present too much depends on the driver's promptness and commonsense in switching off or throttling back when something comes into sight.

Finally, how efficient is the organisation for ensuring the actual protection of the wild life in the forest surrounding the lake? The visitor does not usually set foot on shore so it is impossible to see for one's self. If it is as efficient as the arrangements for protecting the visitors in the hostel, well and good. Yet there are disquieting rumours of rampant poaching. Certainly the behaviour of many of the animals seen, especially the bigger ones, indicated anything but confidence in human beings. Although on this particular visit almost everything was seen that one could reasonably hope to see



in so short a time, reports from other visitors give the impression that this may have been due to pure luck. This should not be in a sanctuary with so perfect a setting and with such admirable facilities for viewing. One can only hope that the authorities concerned are fully alive to the need for the strictest, most efficient, and comprehensive enforcement of protection over the whole area. Otherwise what is, in its way, undoubtedly a national asset of the very greatest, and possibly unique, value will in a short time just wither at the roots.